This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1(currently amended). A carbon substance comprising:

a structure having a ~~size~~ diameter ranging from about 1μm to about 100μm and including carbon and a metal or a metallic oxide; and

a plurality of line-shaped bodies whose diameters are smaller than about 200nm,

wherein the line-shaped bodies include carbon as a main component thereof and grow radially from a surface of the structure; and

wherein the structure has a curved shape of sphere, hemisphere, ellipse or half ellipse.

2(currently amended). A carbon substance comprising:

a plurality of structures, each having a ~~size~~ diameter ranging from about 1μm to about 100μm and including carbon and a metal or a metallic oxide; and

one or more line-shaped bodies whose diameters range from about 50[[μm]] nm to about 1 μm, wherein the line-shaped bodies include carbon as a main component thereof and grow from surfaces of the structures; and

wherein at least parts of the line-shaped bodies connect two or more separate structures.

3(original). The carbon substance of claim 2, wherein each of the line shaped bodies further includes a particle containing at least a metal or a metallic oxide.

4(canceled).

5(currently amended). A carbon substance comprising:

one or more structures, each having a ~~size~~ diameter ranging from about 1μm to about 100μm and including carbon and a metal or a metallic oxide; and

one or more line-shaped bodies whose diameters range from about 50[[μm]] nm to about 1μm,

wherein the line-shaped bodies include carbon as a main component thereof and grow from surfaces of the structures; [[and]]

wherein the line-shaped bodies include at least one body starting from and returning to a same structure; and

wherein at least parts of the line-shaped bodies connect two or more separate structures.

6(withdrawn). A method for manufacturing a carbon substance by a thermal decomposition of a source gas containing carbon in the vicinity of a catalyst,

wherein the catalyst comprises a first and a second materials, the first material being Ni or a Ni oxide and the second material being In or an In oxide; and the thermal decomposition is performed at a temperature ranging from about 675°C to about 750°C, and

wherein the carbon substance comprises a structure having a size ranging from about 1μm to about 100μm and including carbon and a metal or a metallic oxide and a plurality of line-shaped bodies whose diameters are smaller than about 200nm, the line-shaped bodies including carbon as a main component thereof and growing radially from a surface of the structure.

7(withdrawn). A method for manufacturing a carbon substance by thermal decomposition of a source gas having carbon in the vicinity of a catalyst,

wherein the catalyst comprises a first material and a second material, the first material being Ni or a Ni oxide and the second material being In or an In oxide; and the thermal decomposition is performed at a temperature ranging from about 550°C to about 700°C, and

wherein the carbon substance comprises one or more structures, each having a size ranging from about 1μm to about 100μm and including carbon and a metal or a metallic oxide and one or more line-shaped bodies whose diameters range from about 50nm to about 1μm, the line-shaped bodies including carbon as a main component thereof and growing from surfaces of the structures.

8(original). An electron emission element which emits electrons from an electron emission material by using a voltage difference between a first electrode and a second electrode, wherein the electron emission material is arranged on the first electrode and the second electrode is arranged facing the electron emission material, wherein the electron emission material comprises the carbon substance of claim 1.

9(original). An electron emission element which emits electrons from an electron emission material by using a voltage difference between a first electrode and a second electrode, wherein the electron emission material is arranged on the first electrode and the second electrode is arranged facing the electron emission material, and wherein the electron emission material comprises the carbon substance of claim 2.

10(original). The electron emission element of claim 9, wherein the line-shaped bodies of the carbon substance are divided to direct in a radial manner.

11 (previously presented). A composite material comprising the carbon substance of claim 1 in a matrix.

12(previously presented). A composite material comprising the carbon substance of claim 2 in a matrix.

13(previously presented). A method for manufacturing the carbon substance of claim 1 by a thermal decomposition of a source gas having carbon in the vicinity of a catalyst, wherein the catalyst comprises a first and a second materials, the first material being Ni or a Ni oxide and the second material being In or an In oxide; and the thermal decomposition is performed at a temperature ranging from about 675°C to about 750°C.

14(previously presented). A method for manufacturing the carbon substance of claim 2 by a thermal decomposition of a source gas having carbon in the vicinity of a catalyst,

wherein the catalyst comprises a first material and a second material, the first material being Ni or a Ni oxide and the second material being In or an In oxide; and the thermal decomposition is performed at a temperature ranging from about 550°C to about 700°C.

15(canceled).

16 (previously presented). An electron emission element which emits electrons from an electron emission material by using a voltage difference between a first electrode and a second electrode, wherein the electron emission material is arranged on the first electrode and the second electrode is arranged facing the electron emission material, and wherein the electron emission material comprises the carbon substance of claim 5.

17(previously presented). The electron emission element of claim 16, wherein the line-shaped bodies of the carbon substance are divided to direct in a radial manner.

18(previously presented). A composite material comprising the carbon substance of claim 5 in a matrix.

19(previously presented). A method for manufacturing the carbon substance of claim 5 by a thermal decomposition of a source gas having carbon in the vicinity of a catalyst,

wherein the catalyst comprises a first material and a second material, the first material being Ni or a Ni oxide and the second material being In or an In oxide; and the thermal decomposition is performed at a temperature ranging from about 550°C to about 700°C.

20(previously presented). The carbon substance of claim 5, wherein each of the line shaped bodies further includes a particle containing at least a metal or a metallic oxide.